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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/726,571 | 12/01/2000 | Chang-Min Park | 11349-P66135US0 | 1985 |
| 7590 | 04/21/2004 | | EXAMINER | |
| JACOBSON, PRICE, HOLMAN & STERN PROFESSIONAL LIMITED LIABILITY COMPANY 400 Seventh Street, N.W. Washington, DC 20004 | | | TRAN, ELLEN C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2134 | |
| | | | DATE MAILED: 04/21/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|---------------------|
| | 09/726,571 | PARK ET AL. |
| Examiner | Art Unit | |
| Ellen C Tran | 2134 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 01 December 2000.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-4 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-4 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

~~NORMAN M. WRIGHT
PRIMARY EXAMINER~~

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: ____ .

DETAILED ACTION

1. This action is responsive to communication: original application filed 1 December 2000 with a foreign application priority date of 20 January 2000.
2. Claims 1-4 are currently pending in this application. Claims 1 and 4 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella et al. U.S. Patent No. 6,269,099 (hereinafter '099) in further view of Jensen et al. U.S. Patent No. 6,185,612 (hereinafter '612).

As to independent claim 1, “A method for expanding an address for an Internet protocol in an Internet edge router, comprising the steps of: a) defining public network connection information in an option class of an Internet protocol message” is taught in '099 col. 2, lines 57-60 “In a preferred embodiment of the present invention, the peer discovery marker is used as an additional option with an existing networking protocol such as TCP to allow discovery of peer network devices”;

“b) constructing a security & authentication (hereinafter, referred to as "SA") module and an SA hierarchical protocol in a service terminal protocol in order to provide IP address information” is shown in '099 col. 4, lines 5-14 “The peer discovery protocol and

peer discovery methods allow peer edge routers and other peer network devices to discover one another across a network like the Internet and provide “intelligent” edge router services”;

“and constructing a connection information processing part to process the public network connection information; and c) receiving a message from a network interface and processing it, in the connection information processing part” is disclosed in ‘099 col. 2, line 64 through col. 3, lines 4 “The peer discovery table is maintained by a peer network device and is used with information from the peer discovery marker to record the existence of peer network devices. The peer table provides peer network device information in terms of two-way peer-to-peer data “flows” between subnets”;

the following is not taught in ‘099 **“and a user authentication from a server having information of the existing ,public network subscribers by using the public network connection information”** however ‘612 teaches “An authentication component of the request 600, such as the requester’s credentials 604 ... In the case of requests 600 which include routing table 214 updates from the requesting user ” in col. 10, lines 19-32.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify a method for expanding an address for an Internet protocol taught in ‘099 to include a means to provide user authentication from a server. One of ordinary skill in the art would have been motivated to perform such a modification to advance network security see ‘612 (col. 2, lines 30 et seq.) “Accordingly, it would be an advance to provide an approach to routing which takes advantage of existing tools but also enhances the security of network topology”.

As to dependent claim 2, “wherein the public network connection information is a transmitting side terminal address and receiving side terminal address” is shown in ‘099 col. 3, lines 5-25 “One aspect of a peer discovery method for a preferred embodiment of the present invention includes receiving an original first data packet from a first network device (e.g., an edge router) on a first network. The first data packet (e.g., TCP/IP) is used to establish a connection from the first network device on the first network to a fourth network device on a second network … The peer discovery marker includes a network address for the second network device that is trying to discover a peer network device”;

As to dependent claim 3, “wherein said step c) includes: c1) receiving the message from the network interface and storing it in an IP input queue” is taught in ‘099 col. 3, lines 29-31 “Information from a peer discovery marker is extracted and stored in a first peer discovery table on the third network device”;

“c2) deciding by said connection information processing part whether or not a destination address of the received message is same its own IP; c3) clarifying whether or not, connection address information as the terminal address exists within a routing table if the destination address is not same as its own IP in the deciding result of said step c2)” is shown in ‘099 col. 10, lines 20-32 “Peer second network device 16 is able to determine that fourth network device 22 is reached via peer third network device 20 with peer discovery table 96 … The peer-to-peer network devices can now exchange routing “intelligent” routing capabilities, request, or commands and other information”;

“and storing option area user information if there exists the connection address information, and outputting an IP if there does not exist the connection address information” is disclosed in ‘099 col. 2, lines 56-57 “and a peer discovery table for storing peer network device information from a peer discovery marker”;

“c4) confirming whether or not there exists the control information if the destination address is same as its own IP in the deciding result of said fifth step, and processing an Internet control message protocol packet if there exists the control information, and storing packet address and connection information if it is a data packet, and then deciding a type of the ;packet; and” is taught in ‘099 col. 6, lines 3-8 “ICMP layer 34, hereinafter ICMP 34, is used for network management. The main function of ICMP 34 include error reporting, reachability testing (e.g., “pinging”) congestion control, route-change notification, performance, subnet addressing and other maintenance”;

“c5) processing a UDP packet if the type of the packet is a UDP in the deciding result of said seventh step, and processing a TCP packet if the type of the packet is a TCP” is shown in ‘099 col. 2, lines 61-62 “In a preferred embodiment of the present invention, the peer discovery marker is used as an additional option with an existing networking protocol such as TCP to allow discovery of peer network devices. However, the present invention is not limited to using the peer discovery marker with TCP, any other networking protocol could also be used”.

As to independent claim 4, this claims is directed to a record medium of the method of claim 1 and is similarly rejected along the same rationale.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kumaki et al. U.S. Patent No. 6,473,411 issued dated: Oct. 29, 2002

Desgrousilliers U.S. Patent No. 5,881,239 issued dated: Mar. 9, 1999

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen C Tran whose telephone number is (703) 305-8917. The examiner can normally be reached on 6:30 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5484.

Ellen Tran
Patent Examiner
Technology Center 2134
8 April 2004


NORMAN M. WRIGHT
PRIMARY EXAMINER